

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003443**Date Inspected:** 11-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Wu Ming Kai , Chen Yi**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

OBG Bay 1:

The QA Inspector randomly observed ZPMC welders Zhang Shao Hui ID Number 059403, Chen Jie ID Number 059468, Xiang Huan Feng ID Number 059416 and Feng Chuan Hong ID Number 059371, utilizing gantry mounted welding apparatus with the Gas Metal Arc Welding (GMAW) Process in the 2G (Horizontal Groove) Position with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2342-U1(U-Rib)-3, to weld U-Ribs to Deck Plate Sub-Assembly DP413-001 at Weld Joint (WJ) Numbers DP413-001-003/004(U-37)and 007/008(U-49). The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 367/364 amps, 30.1/30.3 volts (WJ 003/004) for Mr. Zhang/Mr. Chen and 363/365 amps, 30.5/30.4 volts (WJ's 007/008) for Mr. Xiang/Mr. Feng with a travel speed of 535 millimeters (mm) per minute for all welders. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welders Xiang Huan Feng ID Number 059416, Xiang Jie ID Number 059378, Gao Xin Dong ID Number 059361, Jiang Ting Guang ID Number 062265, Zhang Shao Hui ID Number 059403 and Chen Jie ID Number 059468 utilizing gantry mounted welding apparatus with the GMAW Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-2342-U1(U-Rib)-3, to weld U-Ribs to Deck Plate Sub-Assembly DP413-001 at WJ's DP413-001-001/002(U-46), 005/006(U-97) and 009/010(U-31). The QA

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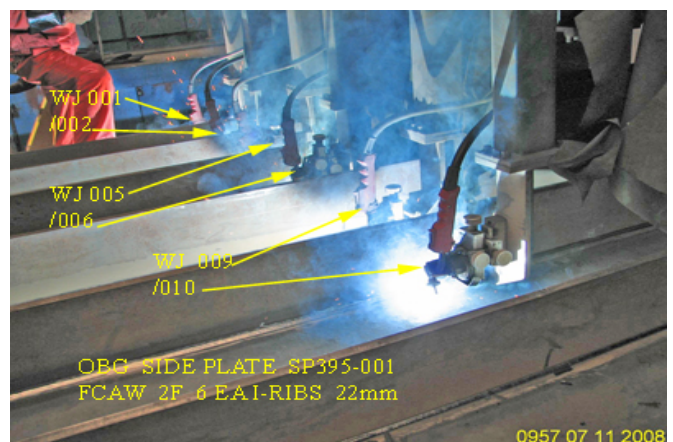
Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 364/371 amps, 30.3/30.6 volts (WJ 001/002) for Mr. Xiang/Mr. Xiang Jie, 363/365 amps, 30.5/30.4 volts (WJ's 007/008) for Mr. Gao/Mr. Jiang and 362/362 amps, 30.2/30.5 volts for Mr. Zhang/Mr. Chen, with a travel speed of 526 mm per minute for all welders. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

OBG Bay 3:

The QA Inspector randomly observed ZPMC welders Li Shu Liang ID Number 048801, Liu Zihong ID Number 062447 and Sun Ti Yu ID Number 054459, utilizing gantry mounted welding apparatus with the FCAW Process in the 2F (Horizontal Fillet) Position with ZPMC WPS WPS-B-T-2132-3, to weld I-Ribs to Side Plate Sub-Assembly SP395-001 at WJ's SP395-001-001/002, 005/006 and 009/010. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 283/277 amps, 30.3/30.7 volts (WJ 001/002) for Mr. Li; 284/281 amps, 30.6/30.8 volts (WJ's 005/006) for Mr. Liu; 278/285 amps, 30.8/30.3 volts for Mr. Sun, with a travel speed of 475 mm per minute for all 3 welders. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

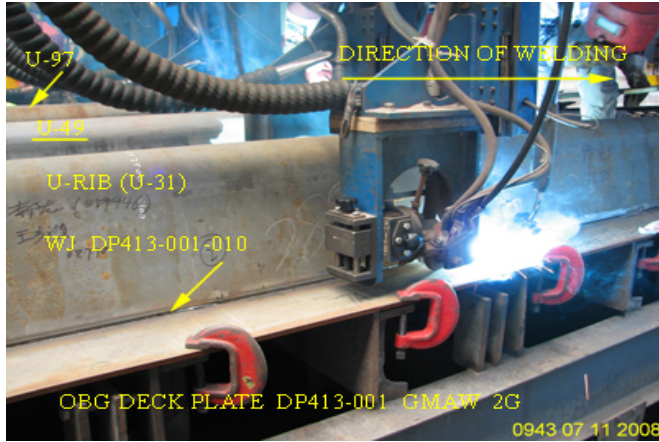
The QA Inspector randomly observed ZPMC welder Xia Meng ID Number 053702, utilizing the FCAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2231-B-U2-F, to weld the butt splices between 22 mm I-Ribs to the 10 mm webs of T-Ribs fr Side Plate SP302-001 at WJ's SP302-001-014, 016, 018, 020, 022 and 024. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 307 amps, 30.6 volts with a travel speed of 312 mm per minute. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC machine operators utilizing magnetic drills and templates to drill bolt holes in the ends of 22 mm I-Ribs. The attached photograph provides additional detail.



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Summary of Conversations:

As noted in the above body of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco 13816942685, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
